

**Firearms Technology Criminal Branch  
Report of Technical Examination**



244 Needy Road #1600  
Martinsburg, WV 25405

Phone: 304-616-4300  
Fax: 304-616-4301

**To:**

Special Agent Caleb Enk  
Bureau of Alcohol, Tobacco, Firearms and Explosives  
10 W. 15th Street  
Suite #2400  
Helena, Montana 59626

UI#: 788075-23-0022

RE: BERGER, Justin Arthur

FTCB#: 2023-327-JTA  
324706

**Date Exhibits Received:** 12/27/2022

**Type of Examination Requested:**

**Delivered By:** FedEx 7708 6848 0138

Examination, Test, Classification

**Exhibits:**

6. Ruger, model AR-556, 5.56mm NATO caliber firearm, bearing serial number 851-43028 (suspected machinegun).
7. Standard Manufacturing Co. LLC, model STD-15, 5.56mm NATO caliber rifle, bearing serial number 0003651 (suspected machinegun).
9. Aero Precision LLC, model X-15, .300 Blackout caliber rifle, bearing serial number X156550 (suspected short-barreled rifle).
10. Cylindrical device, no manufacturer markings, bearing serial number 001 (suspected silencer).
11. Eight Firearm silencer baffles, no manufacturer markings, no serial numbers (suspected silencers).
13. Cylindrical device, no manufacturer markings, no serial number (suspected silencer).
14. Cylindrical device, no manufacturer markings, no serial number (suspected silencer).
15. Cylindrical device, no manufacturer markings, no serial number (suspected silencer).
16. Cylindrical device, no manufacturer markings, no serial number (suspected silencer).

**Pertinent Authority:**

Title 28 of the United States Code (U.S.C.) provides the Bureau of Alcohol, Tobacco Firearms and Explosives (ATF) the authority to investigate criminal and regulatory violations of Federal firearms law at the direction of the Attorney General. Under the corresponding Federal regulation at 28 CFR § 0.130, the Attorney General provides ATF with the authority to investigate, administer, and enforce the laws related to firearms, in relevant part, under 18 U.S.C. Chapter 44 (Gun Control Act) and 26 U.S.C. Chapter 53 (National Firearms Act). Pursuant to the aforementioned statutory and regulatory authority, the ATF Firearms and Ammunition Technology Division (FATD) provides expert technical support on firearms and ammunition to federal, state and local law enforcement agencies regarding the Gun Control Act and the National Firearms Act.

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The Gun Control Act of 1968 (GCA), 18 U.S.C. § 921(a)(3), defines the term “**firearm**” as:

*“...(A) any weapon (including a starter gun) which will or is designed to or may readily be converted to expel a projectile by the action of an explosive; (B) the frame or receiver of any such weapon; (C) any firearm muffler or silencer or (D) any destructive device. Such term does not include an antique firearm.”*

The GCA, § 921(a)(7), defines “**rifle**” as:

*“... a weapon designed or redesigned, made or remade, and intended to be fired from the shoulder and designed or redesigned and made or remade to use the energy of an explosive to fire only a single projectile through a rifled bore for each single pull of the trigger.”*

The GCA, 18 U.S.C. § 921(a)(8), defines the term “**short-barreled rifle**” to mean:

*“...a rifle having one or more barrels less than sixteen inches in length and any weapon made from a rifle (whether by alteration, modification, or otherwise) if such weapon, as modified, has an overall length of less than twenty-six inches...”*

The GCA, 18 U.S.C. § 921(a)(24), defines the term “**machinegun**” as:

*“The term “machinegun” has the meaning given such term in section 5845(b) of the National Firearms Act (26 U.S.C. 5845(b)).”*

The GCA, 18 U.S.C. § 921(a)(25), defines the terms “**firearm silencer**” and “**firearm muffler**” to mean:

*“...any device for silencing, muffling, or diminishing the report of a portable firearm, including any combination of parts, designed or redesigned, and intended for use in assembling or fabricating a firearm silencer or firearm muffler, and any part intended only for use in such assembly or fabrication.”*

The National Firearms Act (NFA), 26 U.S.C. § 5845(a), defines “**firearm**” as:

*“...(1) a shotgun having a barrel or barrels of less than 18 inches in length; (2) a weapon made from a shotgun if such weapon as modified has an overall length of less than 26 inches or a barrel or barrels of less than 18 inches in length; (3) a rifle having a barrel or barrels of less than 16 inches in length; (4) a weapon made from a rifle if such weapon as modified has an overall length of less than 26 inches or a barrel or barrels of less than 16 inches in length; (5) any other weapon, as defined in subsection (e); (6) a machinegun; (7) any silencer (as defined in 18 U.S.C. § 921); and (8) a destructive device. The term “firearm” shall not include an antique firearm or any device (other than a machinegun or destructive device) which, although designed as a weapon, the ... [Attorney General] ... finds by reason of the date of its manufacture, value, design, and other characteristics is primarily a collector's item and is not likely to be used as a weapon.”*

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The NFA, 26 U.S.C. § 5845(b), defines the term “**machinegun**” as:

*“...any weapon which shoots, is designed to shoot, or can be readily restored to shoot, automatically more than one shot, without manual reloading, by a single function of the trigger. The term shall also include the frame or receiver of any such weapon, any part designed and intended solely and exclusively, or **combination of parts designed and intended, for use in converting a weapon into a machinegun**, and any combination of parts from which a machinegun can be assembled if such parts are in the possession or under the control of a person.”*

Further, the NFA, 26 U.S.C. § 5842, “**Identification of firearms**,” states:

*“...(a) Identification of firearms other than destructive devices. - Each manufacturer and importer and anyone making a firearm shall identify each firearm, other than a destructive device, manufactured, imported, or made by a serial number which may not be readily removed, obliterated, or altered, the name of the manufacturer, importer, or maker, and such other identification as the Secretary may by regulations prescribe. (b) Firearms without serial number. - Any person who possesses a firearm, other than a destructive device, which does not bear the serial number and other information required by subsection (a) of this section shall identify the firearm with a serial number assigned by the Secretary and any other information the...[latter]... may by regulations prescribe.”*

### **Background:**

ATF Publication 5300.4, Federal Firearms Regulations Reference Guide, Section IV (B)(1) states, the following:

*“ATF has encountered various AR–15 type rifles such as those manufactured by Colt, E.A. Company, SGW, Sendra and others, which have been assembled with fire control components designed for use in M16 machineguns.*

*The vast majority of these rifles which have been assembled with an M16 bolt carrier, hammer, trigger, disconnecter and selector will fire automatically merely by manipulation of the selector or removal of the disconnecter. Many of these rifles using less than the 5 M16 parts listed above also will shoot automatically by manipulation of the selector or removal of the disconnecter.*

*Any weapon which shoots automatically more than 1 shot without manual reloading, by a single function of the trigger, is a machinegun as defined in 26 U.S.C. 5845(b), the National Firearms Act (NFA). The definition of a machinegun also includes any combination of parts from which a machinegun may be assembled, if such parts are in possession or under the control of a person. An AR–15 type rifle which fires more than 1 shot by a single function of the trigger is a machinegun under the NFA. Any machinegun is subject to the NFA and the possession of an unregistered machinegun could subject the possessor to criminal prosecution.*

*Additionally, these rifles could pose a safety hazard in that they may fire automatically without the user being aware that the weapon will fire more than 1 shot with a single pull of the trigger.*

*In order to avoid violations of the NFA, M16 hammers, triggers, disconnectors, selectors and bolt carriers should not be used in assembly of AR–15 type semiautomatic rifles, unless the M16 parts have been modified to*

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*AR-15 Model SP1 configuration. Any AR-15 type rifles which have been assembled with M16 internal components should have those parts removed and replaced with AR-15 Model SP1 type parts which are available commercially. The M16 components also may be modified to AR-15 Model SP1 configuration.*

ATF has a long history of looking at the design features of a particular item when determining whether an item is a “firearm silencer” under Federal law, including whether it has design features of a part designed to be used in a “firearm silencer.”

The law encompasses any combination of parts designed or redesigned and intended for use in assembling or fabricating a firearm silencer or muffler. Moreover, the statute does not limit the definition of silencer to “a device that silences, muffles, or diminishes.” *United States v. Syverson*, 90 F.3d 227,232(7<sup>th</sup> Cir. 1996)

Similarly, in *United States v. Carter* 465 F.3d 658(6<sup>th</sup> Cir.2006), the Sixth Circuit Court of Appeals found that the statute did not require that a silencer actually diminish the report of a firearm, noting that the “language of the statute focuses on the intended application of a silencer, not its actual demonstrated operation.” Congress did not use such wording as “capable of silencing” or “that silences.” The word choice of Congress indicates a concern for the purpose of the mechanism and the parts thereof, not the function.

When ATF examines a possible silencer part, it compares that item to known silencer designs to provide a context for those features to determine whether the subject item should be classified as a silencer under Federal law. The presence of the design characteristics and reported purpose of the item are important factors in determining whether it should be classified as “any combination of parts, designed or redesigned, and intended for use in assembling or fabricating a firearm silencer or firearm muffler,” or “any part intended only for use in such assembly or fabrication.”

A part need not be 100% complete in order to be considered a “silencer part” as regulated under the GCA and NFA. It need only be manufactured to the point where a critical line has been crossed or critical feature(s) formed to make it recognizable as a silencer part. Once completed to the point of recognition, a part must be regulated as the completed silencer part. To find otherwise would lead to a result that permits manufacturers, importers, or dealers, to avoid “completing” a device or silencer part in order to circumvent government regulation specifically intended by Congress. Therefore, a component, part, assembly, or end item, need only be completed to the point at which it can be recognized as a regulated item based on the objective characteristics of that item which identifies the device as a regulated article.

For your information, any part used **(or if intent for use is demonstrated)** in the assembly of a device for silencing, muffling or diminishing the report of a portable firearm, would be classified as a “firearm silencer” as defined in 18 U.S.C. § 921(a)(25) and a “firearm” as defined in 18 U.S.C. 921 § (a)(3)(C) and 26 U.S.C. § 5845(a)(7) respectively. Therefore, any silencer part not included in an assembled silencer is required to be marked with the manufacturer’s information and a serial number as required by 26 U.S.C. § 5842.

There are multiple audible elements attributable to a firearm in operation including: the report (muzzle blast), the sound of the bullet in flight, and the sound of the firearm action. Firearm silencers are designed to reduce the report of a portable firearm.



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The report of a firearm is mostly the consequence of superheated, high-pressure propellant gases being rapidly released into the atmosphere.

Simplistic silencers typically consist of end-caps attached to each end of a hollow tube, which forms an “**expansion chamber**” (also referenced as a “blast chamber”) within. The end-caps will each have a hole in the center to allow a bullet, followed by propellant gases, to pass through. The resulting device, when attached to a firearm barrel’s muzzle, allows the hot propellant gases exiting the barrel to expand and cool prior to being slowly released into the open atmosphere which generally causes a reduction in the sound pressure level of a gunshot.

The first portion of an excerpt obtained from United States Patent 7,308,967 for a firearm silencer (sound suppressor) clearly describes the devices included in this report:

*“A sound suppressor for a firearm for reducing sound and flash levels upon the discharge of a firearm comprises a cylindrical housing, a proximal end cap with means for attachment to a firearm and to a cylindrical housing, a distal end cap with means for attachment to the housing...”*

The patent goes on to describe the interior component parts of the specific firearm silencer. Threaded outer tubes designed to accept proximal end caps, threaded to facilitate attachment to a firearm barrel, and distal end caps which form an expansion chamber (with or without internal baffles or other silencer component parts), are design features common to many firearm silencers.

The concept of an “expansion chamber” or “blast chamber” is frequently encountered in firearm silencers. Generally, an expansion chamber/blast chamber is located to be proximal to the mounting point of the firearm silencer (sound suppressor) to the barrel. In silencers incorporating a monolithic baffle core, the largest expansion chamber is typically placed at the base of the core. In designs incorporating individual baffles, often a longer silencer baffle spacer is installed near the proximal barrel mounting portion of the silencer to form a larger chamber in that portion of the device. In firearm silencers/sound suppressors lacking interior baffles, the entire interior of the silencer can become one large expansion chamber/blast chamber. United State Patent No.: 8,292,025 B1 describes a “blast chamber” within the “Summary of the Invention” portion of the Patent documentation to include:

*“The enlarged blast chamber traps and cools gases that are discharged by a fired bullet”.*

Additional components may serve to aid or enhance silencing, muffling, or diminishing the report of a portable firearm, by further reducing the speed, pressure, or rate of release of the propellant gases.

Typically, these additional components may include:

- Baffles or washers which create separate expansion chambers
- Ported inner sleeve or tube (bleed holes)
- Sound dampening material such as foam, steel wool, and other substances

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**Baffles** or a “**monolithic baffle core**” in firearms silencers are designed to slow, create turbulence in, or redirect the flow of hot propellant gases, depending upon the baffle’s particular design features. Further, baffles can be used to segregate a large expansion chamber to create multiple, smaller expansion chambers of various sizes by stacking several baffles together or by the use of spacers between baffles.

### **Findings:**

**Exhibit 6** is a 5.56x45mm caliber, AR-type firearm manufactured by Ruger in Mayodan, North Carolina. As received, the Exhibit is equipped with a secondary forward grip, pressure pad, weapon light, hand stop, flip up sights, M16-type bolt carrier and internally threaded muzzle device. Additionally, an electronic sight and mounting base were received with the Exhibit.

During my examination, I observed the following markings:

#### **On the receiver, left side of the magazine well**

- **RUGER**
- **MAYODAN, NC USA**
- **851-43028** *[serial number]*

#### **On the receiver, above the trigger**

- **AR-556**

#### **Selector markings, left and right side**

- **FIRE**
- **SAFE**

My examination revealed that Exhibit 6 function tests as a binary trigger. I separated the upper assembly from the receiver to determine the cause of the binary function. I observed that Exhibit 6 incorporates a binary trigger.

A binary-style trigger releases the hammer when the trigger is pulled to the rear, the firearm is cycled, cocking the hammer, and releases the hammer when the trigger is released. The “pull” and the “release” are considered separate functions of the trigger.

I test-fired Exhibit 6, on January 10, 2023, at the ATF test range in Martinsburg, West Virginia, using commercially available, Remington brand, .223 Remington caliber ammunition and a magazine obtained from the National Firearms Collection (NFC).

First, I inserted the magazine with one round of ammunition, chambered the round, placed the selector in the semiautomatic position and pulled the trigger. Exhibit 6 successfully expelled a projectile by the action of an explosive.

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Then, I inserted the magazine with two rounds of ammunition, chambered the first round, placed the selector in the semiautomatic position and pulled the trigger, holding the trigger to the rear. Exhibit 6 fired a single round of ammunition and fired another round on the release of the trigger. I repeated this method of test fire one additional time, achieving the same result.

Finally, I inserted the magazine with ten rounds of ammunition, chambered the first round, placed the selector in the semiautomatic position and pulled the trigger. Exhibit 6 fired a single round of ammunition for each pull of the trigger and a single round for each release of the trigger. I repeated this method of test fire one additional time, achieving the same result.

**Exhibit 7** is a 5.56.45mm caliber, AR-type firearm assembled utilizing a receiver manufactured by Standard Manufacturing Co. LLC in New Britain, Connecticut. As received, the Exhibit is equipped with a collapsible shoulder stock and an internally threaded muzzle device. A telescopic sight and laser aiming device are included with the Exhibit. The Exhibit has an overall length of approximately 33-3/8 inches and contains a rifled barrel approximately 14-5/8 inches in length. I observed that the Exhibit has no NFA manufacturer markings as required by 26 U.S.C. § 5842.

I measured the overall length of Exhibit 7 in the following manner: I placed the Exhibit on a flat surface (with the muzzle device removed), measured the distance along a line parallel to the center line of the bore between the rear of the stock and the muzzle of the barrel and noted the measurement.

Additionally, I measured the barrel of Exhibit 7 in the following manner: I closed the bolt, placed the Exhibit on a flat surface, inserted a cylindrical scale into the muzzle of the barrel until it touched the bolt face, noted the measurement, and removed the cylindrical scale from the barrel. Being a rifle having a barrel of less than 16 inches in length, Exhibit 7 is also a *short-barreled rifle* as defined.

I observed the following external markings on Exhibit 7:

On the left side of the magazine well



- [Standard Manufacturing CO LLC logo]
- **STD-15**
- **CAL MULTI**
- **ARS 0003651** [serial number]

On the left side, above the trigger

- **Standard Manufacturing Co LLC New Britain, CT**

Selector markings, left and right side

- **SAFE**
- **FIRE**

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On top of the barrel

- **5.56 NATO 1:7**

My examination revealed that Exhibit 7 function tests as a machinegun with the selector in the unmarked 3-o'clock position. I separated the upper assembly from the receiver to determine the cause of the machinegun function, and discovered that Exhibit 7 has been assembled utilizing an M16 bolt carrier and the following M16-type machinegun fire-control parts:

- M16 hammer
- M16 disconnecter
- M16 trigger
- M16 safety/selector

I noted that the Exhibit does not have a machinegun automatic sear installed as the receiver is not configured to accept one.

During my examination, a bag containing the following items was contained within the pistol grip of Exhibit 7: one M16 automatic sear, one automatic sear pin, one "M-16 Drilling Jig" and one drill bit.

As received, with the selector set to the unmarked 3-o'clock position, Exhibit 7 operates in a "hammer-follow" condition. "Hammer follow" is described as the hammer follows the bolt as it feeds the cartridge into the chamber, but without the delay imparted by the automatic sear, the hammer fall is uncontrolled and may lack sufficient force to detonate the primer of the cartridge. Hammer-follow AR-type firearms that shoot automatically are classified as "**machineguns**."

I test-fired Exhibit 7 on January 10, 2023, at the ATF test range in Martinsburg, West Virginia, using commercially available, Federal brand, .223 Remington caliber ammunition and a magazine obtained from the NFC. I inserted the magazine with one round of ammunition, set the selector to the semiautomatic position, chambered the round, and pulled the trigger. Exhibit 7 successfully expelled a projectile by the action of an explosive. I then inserted a magazine with five rounds of ammunition, chambered the first round, and pulled the trigger. Exhibit 7 fired a single round of ammunition for each pull of the trigger. I repeated this method of test fire two additional times, achieving the same result.

Next, I inserted a magazine containing two rounds of ammunition, chambered the first round, set the selector to the unmarked 3-o'clock position, and pulled the trigger. Exhibit 7 fired both rounds of ammunition automatically, without manual reloading, by a single function of the trigger. I repeated this method of test fire two additional times, achieving the same result.

Finally, I inserted a magazine containing five rounds of ammunition into Exhibit 7, chambered the first round, and pulled the trigger. Exhibit 7 fired all five rounds automatically, without manual reloading, by a single function of the trigger. I repeated this five-round method of test-fire two additional times, achieving the same result.

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Exhibit 7 is a weapon which shoots, automatically more than one shot, without manual reloading, by a single function of the trigger; therefore, it is a “**machinegun**” as defined.

**Exhibit 9** is a .300 Blackout caliber rifle assembled utilizing a receiver manufactured by Aero Precision LLC, in Tacoma, Washington. Exhibit 9 is equipped with a collapsible shoulder-stock. The Exhibit is only partially complete as received. Exhibit 9 has an overall length of approximately 29-1/4 inches and contains a rifled barrel approximately 10-5/8 inches in length. I observed that the Exhibit has no NFA manufacturer markings as required by 26 U.S.C. § 5842.

I measured the overall length of Exhibit 9 in the following manner: I placed the Exhibit on a flat surface (with the upper assembly positioned on the receiver), measured the distance along a line parallel to the center line of the bore between the rear of the stock and the muzzle of the barrel and noted the measurement.

Additionally, I measured the barrel of Exhibit 9 in the following manner: I installed a bolt and bolt carrier assembly obtained from the NFC, closed the bolt, placed the Exhibit on a flat surface, inserted a cylindrical scale into the muzzle of the barrel until it touched the bolt face, noted the measurement, and removed the cylindrical scale from the barrel. Being a rifle having a barrel of less than 16 inches in length, Exhibit 9 is a *short-barreled rifle* as defined.

During my examination, I observed the following markings:

On the receiver, left side of the magazine well



- [AERO Precision logo]
- **MODEL X15**
- **CAL MULTI**
- **S/N X156550** [Serial number]

Left side of the receiver above the trigger

- **AERO PRECISION LLC**
- **TACOMA, WA**

Right side of the receiver above the trigger

- **FAF-10 MULTI**
- **FAF10-00008** [serial number]

On the receiver, right side of the magazine well



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As received, Exhibit 9 is a weapon designed to expel a projectile by the action of an explosive and incorporates the receiver of such a weapon; therefore, Exhibit 9 is a “firearm” as defined. Additionally, Exhibit 9 incorporates a collapsible shoulder stock and is a weapon “designed to be fired from the shoulder”, therefore it is a “rifle” as defined. Being a rifle having a barrel of less than 16 inches, it is a “**short-barreled rifle**” as defined.

Exhibit 9 is missing the fire control components and bolt carrier assembly, I did not perform a test-fire of the Exhibit.

**Exhibit 10** consists of a cylindrical device measuring approximately 8-5/8 inches in length and 1-5/8 inches in diameter.

During my examination, I observed the following markings on Exhibit 15:

- **300 AAC**
- **SUBSONIC ONLY**
- **SN: 001**
- **JAB TRUST**

Disassembly revealed that the device consists of an expansion chamber created by the two end-caps and the outer tube. The interior components of Exhibit 10 appear to be coated with deposits of gray/black residue consistent with fouling byproducts produced by the combustion of propellant powder (see attached photos).

Each end of the Exhibit 10 tube contains an end-cap. The front end-cap contains a centrally located hole to allow passage of a bullet. The rear end-cap is comprised of a locking mechanism which is designed to facilitate attachment to a firearm barrel by attaching to a muzzle device.

These features and characteristics are consistent with firearm silencers I have examined, and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Exhibit 10 is a device for silencing, muffling, or diminishing the report of a portable firearm; therefore, it is a “**firearm silencer**” by definition.

For sound-comparison test purposes, I used a Ruger, Model 22/45, .22 caliber semiautomatic pistol from the NFC, serial number 220-78000, with and without Exhibit 10 attached. I conducted the sound-comparison testing at the ATF test range in Martinsburg, West Virginia, on January 10, 2023, using commercially available, CCI brand, .22LR caliber ammunition. I conducted this test in the presence of a Bruel & Kjaer, Nexus Acoustic Conditioner Amplifier, calibrated precision sound-level meter, and recorded the results.

I used a threaded adapter to attach the device to the NFC Ruger pistol. Manufacturers produce silencers with a wide variety of attachment methods. It is common for a silencer user to utilize threaded adapters, twist-and-lock adapters, or even modify the firearm to fit a silencer.

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I followed the standard operating procedures established by ATF for conducting the testing. During this procedure, a pre and post self-test calibration verification procedure was automatically conducted. The instrument passed both the pre and post self-test calibration verifications.

The results of the testing are as follows:

NFC Ruger with no silencer	(5-shot average)	154.69 decibels
NFC Ruger with Exhibit 10 attached	(5-shot average)	143.19 decibels

The sound reduction recorded was 11.50 decibels. The test results establish that Exhibit 10 is capable of diminishing the sound report of a portable firearm.

**Exhibit 11** is comprised of eight K-type firearm silencer baffles. The Exhibit 11 silencer baffles are compatible with Exhibit 10. My examination revealed that none of the Exhibit 11 silencer baffles have a serial number or marks of identification associated with the maker or manufacturer.

Each of the Exhibit 11 baffles incorporate a centrally located center hole to allow passage of a bullet. Additionally, the exterior surfaces of each baffle appear to have deposits of gray/black residue consistent with fouling byproducts produced by the combustion of propellant powder (see attached photos).

I observed that six of the eight baffles have been marked with the following numbers: “**2, 3, 4, 5, 6 and 8**” (see attached photos).

The features and characteristics of each Exhibit 11 silencer baffle are consistent with those of a firearm silencer part and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Each Exhibit 11 silencer baffle, in and of itself, is a part intended only for use in the assembly or fabrication of a firearm silencer and therefore, each silencer baffle is a “**firearm silencer**” as defined.

To demonstrate the Exhibit 11 baffles are compatible with Exhibit 10, and are designed to slow, capture, and cool the flow of hot propellant gases, I installed the eight Exhibit 11 silencer baffles into Exhibit 10. For the purposes of this report, hereafter referred to as **Exhibits 10/11**.

For sound-comparison test purposes, I used a Ruger, Model 22/45, .22 caliber semiautomatic pistol from the NFC, serial number 220-78000, with and without Exhibits 10/11. I conducted the sound-comparison testing at the ATF test range in Martinsburg, West Virginia, on January 10, 2023, using commercially available, CCI brand, .22LR caliber ammunition. I conducted this test in the presence of a Bruel & Kjaer, Nexus Acoustic Conditioner Amplifier, calibrated precision sound-level meter, and recorded the results.

I used a threaded adapter to attach the device to the NFC Ruger pistol. Manufacturers produce silencers with a wide variety of attachment methods. It is common for a silencer user to utilize threaded adapters, twist-and-lock adapters, or even modify the firearm to fit a silencer.

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I followed the standard operating procedures established by ATF for conducting the testing. During this procedure, a pre and post self-test calibration verification procedure was automatically conducted. The instrument passed both the pre and post self-test calibration verifications.

The results of the testing are as follows:

NFC Ruger with no silencer	(5-shot average)	154.41 decibels
NFC Ruger with Exhibits 10/11 attached	(5-shot average)	133.60 decibels

The sound reduction recorded was 20.81 decibels. The test results establish that Exhibits 10/11 is capable of diminishing the sound report of a portable firearm.

**Exhibit 13** consists of one cylindrical device, black in color, approximately 5-15/16 inches in length, and 1-1/16 inches in diameter. My examination revealed that Exhibit 13 has no visible NFA manufacturers markings or a serial number.

I disassembled Exhibit 13 to examine the interior of the device. Disassembly revealed that the interior of the device contains seven cone-type baffles and one spacer.

As received, Exhibit 13 incorporates the following firearm silencer design features and characteristics:

- One metal cylindrical **tube** that serves as the outer body of the firearm silencer. Each end of the tube is internally-threaded to accept the end-caps.
- Two metal **end-caps**, each of the end-caps are externally threaded in order to attach to each end of the tube, which creates an **expansion chamber** when assembled. The rear end-cap has a centrally located hole which is internally threaded to facilitate attachment of the device to a portable firearm.
- A series of seven cone-type **baffles** used to create multiple, smaller expansion chambers by partitioning the larger expansion chamber of the device.
- One spacer, which is used to create a **blast chamber** within the device.

The seven cone-type silencer baffles and the front end-cap incorporate a centrally located, shallow impression indicating the central axis of each part. These shallow spot-drilled impressions indicate the location to drill a center hole. Spot drilling is a common practice that creates a small “divot” to correctly locate the center of a drill bit in relation to the part before a hole is drilled.

ATF has long held that spot drilling the location of a hole is equivalent to drilling the actual hole with respect to determining if a critical feature has been created. Spot drilling creates a reference point which designates the correct location to drill the center hole. The center hole is only important to allow a projectile to pass through the silencer, and it is critical that the hole in the front end-cap and each baffle is centered in order to minimize the potential of a projectile striking the end-cap or a baffle when it is fired through the silencer. This feature is useless and even counterproductive in a “inline fuel filter” or a “solvent trap”.

As the center holes in the baffles and front end-cap are not drilled, the end-user of the device would be able to drill center holes of a size that would be most efficient for the caliber of the intended firearm. A firearm silencer is typically most efficient when the center holes are no more than .030 to .080-inch larger than the diameter of

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the bore of the firearm it is intended to be attached to. As such, unfinished center holes are advantageous with these devices as it allows the center hole sizes to be customized by the end-user to maximize efficiency.

The seven cone-type silencer baffles and front end-cap could be drilled (completed) within 5-10 minutes with the aid of a drill and drill bit/bits.

The features and characteristics of Exhibit 13 are consistent with those of a firearm silencer and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Exhibit 13 is a device for silencing, muffling, or diminishing the report of a portable firearm and therefore, is a **“firearm silencer”** as defined.

Because each of the baffles and the front end-cap do not have completed center holes to facilitate passage of a bullet or propellant gases, I did not conduct sound comparison testing on Exhibit 13.

**Exhibit 14** is a cylindrical device, approximately 5-7/8 inches in length and 1-3/8 inches in diameter. My examination revealed that Exhibit 14 has no visible NFA manufacturers markings or a serial number.

Disassembly revealed that the device consists of an outer tube containing a monolithic baffle core.

The front end (end-cap) of the monolithic baffle core is externally threaded and contains a centrally located hole to allow passage of a bullet. The outer tube is retained on the monolithic baffle core by a retaining nut. The retaining nut is internally threaded to match the threads of the monolithic baffle core. The rear end-cap contains a centrally located hole and is internally threaded to facilitate attachment to a threaded firearm barrel.

These features and characteristics are consistent with firearm silencers I have examined, and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Exhibit 14 is a device for silencing, muffling, or diminishing the report of a portable firearm and therefore, is a **“firearm silencer”** as defined.

For sound-comparison test purposes, I used a Ruger, Model 22/45, .22 caliber semiautomatic pistol from the NFC, serial number 220-78000, with and without Exhibit 14 attached. I conducted the sound-comparison testing at the ATF test range in Martinsburg, West Virginia, on January 10, 2023, using commercially available, CCI brand, .22LR caliber ammunition. I conducted this test in the presence of a Bruel & Kjaer, Nexus Acoustic Conditioner Amplifier, calibrated precision sound-level meter, and recorded the results.

I used a threaded adapter to attach the device to the NFC Ruger pistol. Manufacturers produce silencers with a wide variety of attachment methods. It is common for a silencer user to utilize threaded adapters, twist-and-lock adapters, or even modify the firearm to fit a silencer.

I followed the standard operating procedures established by ATF for conducting the testing. During this procedure, a pre and post self-test calibration verification procedure was automatically conducted. The instrument passed both the pre and post self-test calibration verifications.

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The results of the testing are as follows:

NFC Ruger with no silencer	(5-shot average)	154.27 decibels
NFC Ruger with Exhibit 14 attached	(5-shot average)	141.95 decibels

The sound reduction recorded was 12.32 decibels. The test results establish that Exhibit 14 is capable of diminishing the sound report of a portable firearm.

**Exhibit 15** is a cylindrical device, approximately 6-3/8 inches in length, and 1-1/2 inches in diameter. As received, an internally threaded muzzle device is contained within the Exhibit 15 rear end-cap. My examination revealed that Exhibit 15 has no visible NFA manufacturers markings or a serial number.

Exhibit 15 is consistent with devices marketed as “Airsoft” silencers.

Disassembly revealed that the device consists of an expansion chamber created by the two end-caps and the outer tube. Within the expansion chamber, the device contains a coil spring. Similar devices I have examined incorporate a coil spring that retain sound dampening material in position within the expansion chamber.

The interior components of Exhibit 15 appear to be coated with deposits of gray/black residue consistent with fouling byproducts produced by the combustion of propellant powder (see attached photos).

During my examination, I observed the following markings on Exhibit 15:

- **SUREFIRE LLC**
- **FOUNTAIN VALLEY, CA**
- **SOCOM556 CAL:5.56MM**
- **SER:A1801055**

Each end of the Exhibit 15 tube contains an end-cap. The front end-cap contains a centrally located hole to allow passage of a bullet. The rear end-cap is comprised of a locking mechanism which is designed to facilitate attachment to a firearm barrel by attaching to a muzzle device.

These features and characteristics are consistent with firearm silencers I have examined, and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Exhibit 15 is a device for silencing, muffling, or diminishing the report of a portable firearm and therefore, is a **“firearm silencer”** as defined.

For sound-comparison test purposes, I used a Ruger, Model 22/45, .22 caliber semiautomatic pistol from the NFC, serial number 220-78000, with and without Exhibit 15 attached. I conducted the sound-comparison testing at the ATF test range in Martinsburg, West Virginia, on January 10, 2023, using commercially available, CCI brand, .22LR caliber ammunition. I conducted this test in the presence of a Bruel & Kjaer, Nexus Acoustic Conditioner Amplifier, calibrated precision sound-level meter, and recorded the results.



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I used a threaded adapter to attach the device to the NFC Ruger pistol. Manufacturers produce silencers with a wide variety of attachment methods. It is common for a silencer user to utilize threaded adapters, twist-and-lock adapters, or even modify the firearm to fit a silencer.

I followed the standard operating procedures established by ATF for conducting the testing. During this procedure, a pre and post self-test calibration verification procedure was automatically conducted. The instrument passed both the pre and post self-test calibration verifications.

The results of the testing are as follows:

NFC Ruger with no silencer	(5-shot average)	154.37 decibels
NFC Ruger with Exhibit 15 attached	(5-shot average)	143.75 decibels

The sound reduction recorded was 10.62 decibels. The test results establish that Exhibit 15 is capable of diminishing the sound report of a portable firearm.

**Exhibit 16** is a cylindrical device, approximately 6-13/16 inches in length, and 1-1/2 inches in diameter. As received, an internally threaded muzzle device is contained within the Exhibit 16 rear end-cap. My examination revealed that Exhibit 16 has no visible NFA manufacturers markings or a serial number.

Exhibit 16 is consistent with devices marketed as “Airsoft” silencers.

Disassembly revealed that the device consists of an expansion chamber created by the two end-caps and the outer tube.

During my examination, I observed the following markings on Exhibit 16:

- **FRONT TOWARD ENEMY**
- **ADVANCE ARMAMENT CORP**
- **LAWRENCEVILLE, GA USA M4-2000**
- **ON-OFF**

Each end of the Exhibit 16 tube contains an end-cap. The front end-cap contains a centrally located hole to allow passage of a bullet. The rear end-cap is comprised of a locking mechanism which is designed to facilitate attachment to a firearm barrel by attaching to a muzzle device.

These features and characteristics are consistent with firearm silencers I have examined, and are designed to aid in capturing, cooling, diverting, diffusing, and slowing the hot gases created by burning propellant powder.

Exhibit 16 is a device for silencing, muffling, or diminishing the report of a portable firearm and therefore, is a “**firearm silencer**” as defined.

For sound-comparison test purposes, I used a Ruger, Model 22/45, .22 caliber semiautomatic pistol from the NFC, serial number 220-78000, with and without Exhibit 16 attached. I conducted the sound-comparison testing at the ATF test range in Martinsburg, West Virginia, on January 10, 2023, using commercially available,

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CCI brand, .22LR caliber ammunition. I conducted this test in the presence of a Bruel & Kjaer, Nexus Acoustic Conditioner Amplifier, calibrated precision sound-level meter, and recorded the results.

I used a threaded adapter to attach the device to the NFC Ruger pistol. Manufacturers produce silencers with a wide variety of attachment methods. It is common for a silencer user to utilize threaded adapters, twist-and-lock adapters, or even modify the firearm to fit a silencer.

I followed the standard operating procedures established by ATF for conducting the testing. During this procedure, a pre and post self-test calibration verification procedure was automatically conducted. The instrument passed both the pre and post self-test calibration verifications.

The results of the testing are as follows:

NFC Ruger with no silencer	(5-shot average)	154.41 decibels
NFC Ruger with Exhibit 16 attached	(5-shot average)	147.45 decibels

The sound reduction recorded was 6.96 decibels. The test results establish that Exhibit 16 is capable of diminishing the sound report of a portable firearm.

### Conclusions:

**Exhibit 6** is a weapon which will expel a projectile by the action of an explosive and incorporates the receiver of such a weapon; therefore, it is a **“firearm”** as defined in 18 U.S.C. § 921(a)(3)(A) & (B).

**Exhibit 7**, being a weapon which will expel a projectile by the action of an explosive and incorporating the receiver of such a weapon, is a **“firearm”** as defined in 18 U.S.C. § 921(a)(3)(A) & (B).

**Exhibit 7** is a weapon which shoots automatically more than one shot, without manual reloading, by a single function of the trigger; therefore, it is a **“machinegun”** as defined in 26 U.S.C. § 5845(b).

**Exhibit 7** is a **“machinegun”** as defined in 18 U.S.C. § 921(a)(24).

**Exhibit 7**, being a “machinegun,” is a **“firearm”** as defined in 26 U.S.C. § 5845(a)(6).

**Exhibit 7** bears no NFA manufacturer or maker’s marks of identification as required by 26 U.S.C. § 5842.

**Exhibit 9**, being a weapon which is designed to expel a projectile by the action of an explosive and incorporating the receiver of such a weapon, is a **“firearm”** as defined in 18 U.S.C. §§ 921(a)(3)(A) and (B).

**Exhibit 9**, being a rifle having a barrel of less than sixteen inches, is a **“short-barreled rifle”** as defined in 18 U.S.C. § 921(a)(8).

**Exhibit 9**, being a rifle having a barrel or barrels of less than sixteen inches in length, is a **“firearm”** as defined in 26 U.S.C. § 5845(a)(3).

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**Exhibit 9** bears no NFA manufacturer's marks of identification as required by 26 U.S.C. § 5842.

**Exhibit 10**, being a device for silencing, muffling, or diminishing the report of a portable firearm, is a "**firearm silencer**" as defined in 18 U.S.C. § 921(a)(25).

**Exhibit 10**, being a "firearm silencer," is a "**firearm**" as defined in 18 U.S.C. § 921(a)(3)(C).

**Exhibit 10** is a "firearm silencer" as defined in 18 U.S.C. § 921(a)(25); therefore, it is also a "**firearm**" as defined in 26 U.S.C. § 5845(a)(7).

Each **Exhibit 11** silencer baffle, in and of itself, is a part intended only for use in the assembly or fabrication of a firearm silencer; therefore, each silencer baffle is a "**firearm silencer**" as defined in 18 U.S.C. § 921(a)(25).

Each **Exhibit 11** silencer baffle, in and of itself, is a "**firearm**" as defined in 18 U.S.C. § 921(a)(3)(C).

Each **Exhibit 11** silencer baffle, in and of itself, is a "firearm silencer" as defined in 18 U.S.C. § 921(a)(25); therefore, each silencer baffle is also a "**firearm**" as defined in 26 U.S.C. § 5845(a)(7).

None of the **Exhibit 11** silencer baffles are marked with NFA manufacturer's marks of identification or a serial number as required by 26 U.S.C. § 5842.

**Exhibit 14**, being a device for silencing, muffling, or diminishing the report of a portable firearm, is a "**firearm silencer**" as defined in 18 U.S.C. § 921(a)(25).

**Exhibit 14**, being a "firearm silencer," is a "**firearm**" as defined in 18 U.S.C. § 921(a)(3)(C).

**Exhibit 14** is a "firearm silencer" as defined in 18 U.S.C. § 921(a)(25); therefore, it is also a "**firearm**" as defined in 26 U.S.C. § 5845(a)(7).

**Exhibit 14** bears no NFA manufacturer or makers marks of identification or serial number as required by 26 U.S.C. § 5842.

**Exhibit 15**, being a device for silencing, muffling, or diminishing the report of a portable firearm, is a "**firearm silencer**" as defined in 18 U.S.C. § 921(a)(25).

**Exhibit 15**, being a "firearm silencer," is a "**firearm**" as defined in 18 U.S.C. § 921(a)(3)(C).

**Exhibit 15** is a "firearm silencer" as defined in 18 U.S.C. § 921(a)(25); therefore, it is also a "**firearm**" as defined in 26 U.S.C. § 5845(a)(7).

**Exhibit 15** bears no NFA manufacturer or makers marks of identification or serial number as required by 26 U.S.C. § 5842.

**Exhibit 16**, being a device for silencing, muffling, or diminishing the report of a portable firearm, is a "**firearm silencer**" as defined in 18 U.S.C. § 921(a)(25).

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**Exhibit 16**, being a “firearm silencer,” is a “**firearm**” as defined in 18 U.S.C. § 921(a)(3)(C).

**Exhibit 16** is a “firearm silencer” as defined in 18 U.S.C. § 921(a)(25); therefore, it is also a “**firearm**” as defined in 26 U.S.C. § 5845(a)(7).

**Exhibit 16** bears no NFA manufacturer or makers marks of identification or serial number as required by 26 U.S.C. § 5842.

Examined by:

**JASON  
ARMSTRONG** Digitally signed by  
JASON ARMSTRONG  
Date: 2023.01.12  
05:18:07 -05'00'

Jason Armstrong  
Firearms Enforcement Officer

Approved by:

**CODY TOY** Digitally signed by CODY  
TOY  
Date: 2023.01.12  
10:24:04 -05'00'

Cody Toy  
Chief, Firearms Technology Criminal Branch

Attachments: 27 pages bearing photographs.

**Enclosed is a Firearms Technology Criminal Branch report provided in response to your request for assistance. Please be aware that these documents constitute “taxpayer return information” that is subject to the strict disclosure limitations provided in 26 U.S.C. § 6103. Exceptions to the non-disclosure provisions that permit the disclosure internally within ATF are set forth in 26 U.S.C. §§ 6103(h)(2)(C) and (o)(1). Any further disclosure of these reports is strictly limited and must be reviewed and approved by the Office of Chief Counsel prior to any information dissemination. Failure to adhere to the disclosure limitations provided in 26 U.S.C. § 6103 could result in civil and/or criminal liability.**



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# Exhibit 6





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## Exhibit 6 Markings



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## Exhibit 6

Assembled with binary Fire-Control components





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# Exhibit 7



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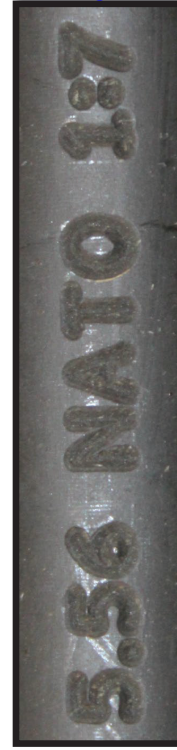
# Exhibit 7 Measurements





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## Exhibit 7 Markings

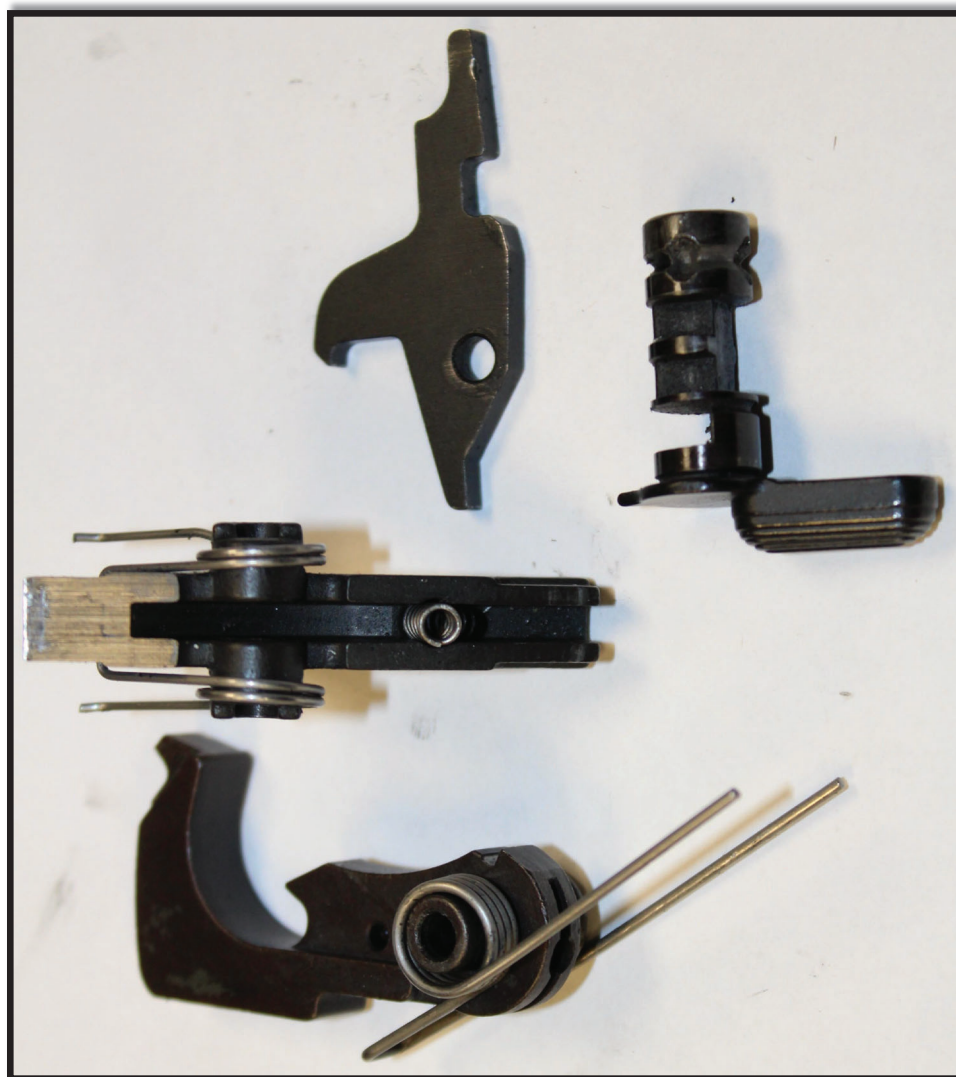




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# Exhibit 7

Assembled with M16 Machinegun Fire-Control components



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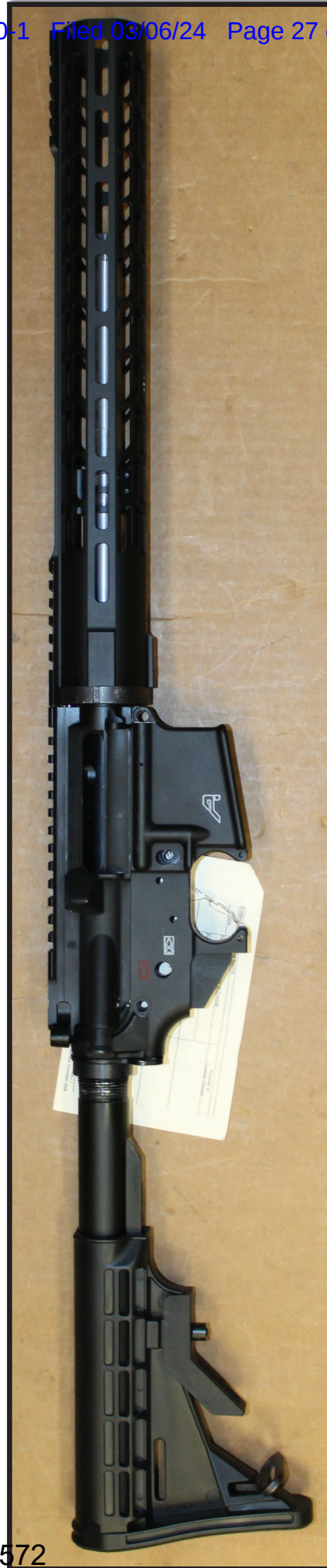
# Exhibit 7

Items contained within the pistol grip



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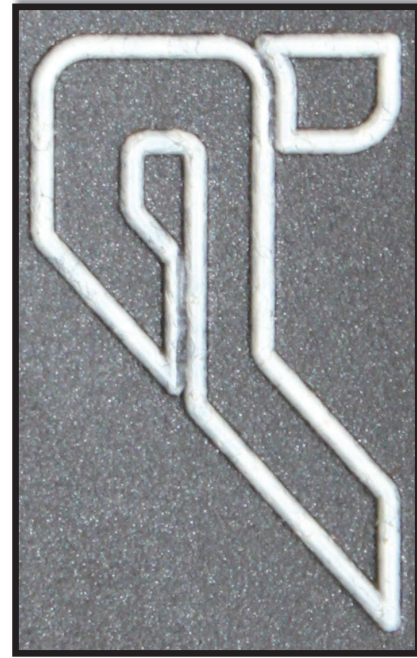
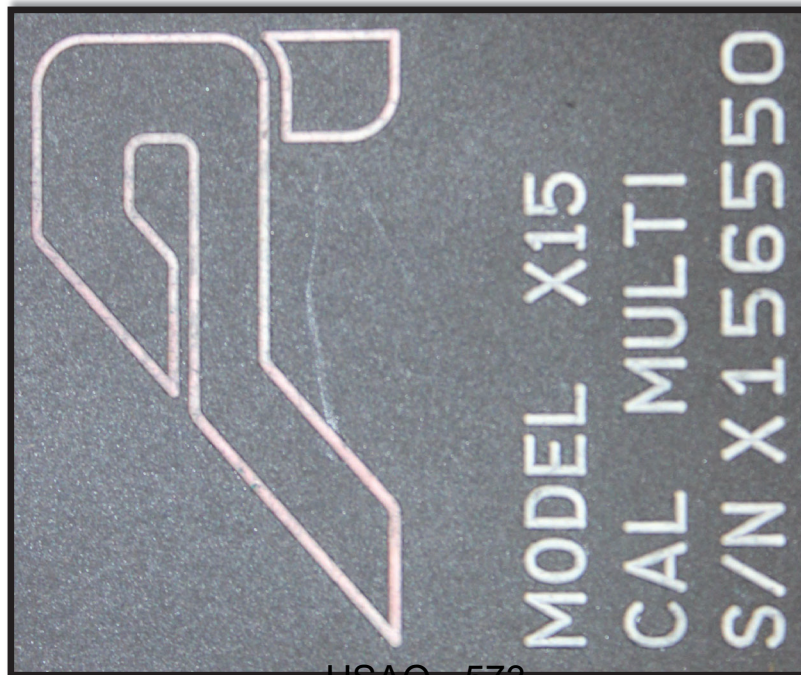
# Exhibit 9





# Exhibit 9 Markings

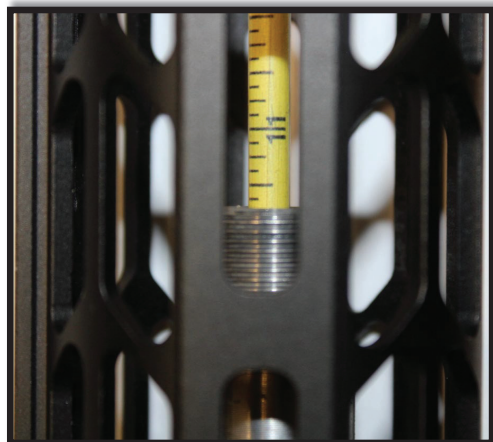
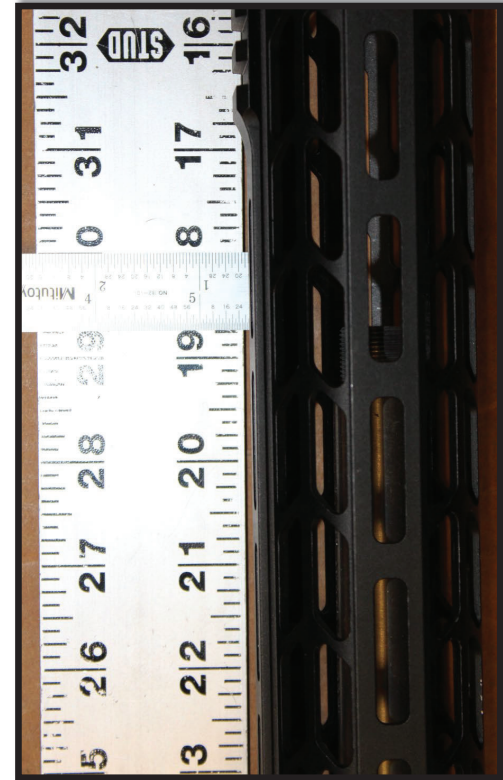
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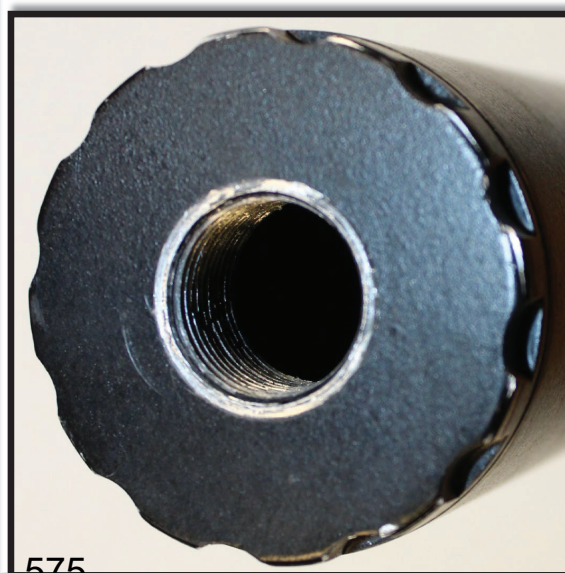
# Exhibit 9 Measurements





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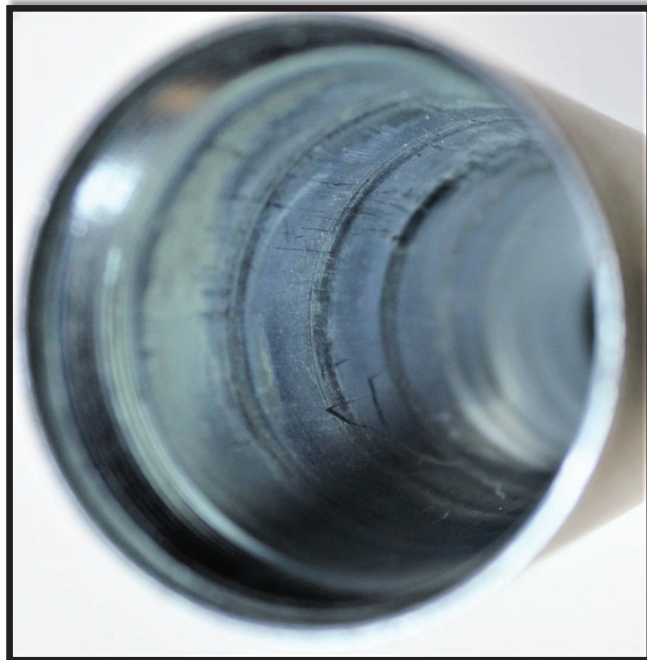
# Exhibit 10





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## Exhibit 10



The interior components of Exhibit 10 appear to be coated with deposits of gray/black residue consistent with fouling by products produced by the combustion of propellant powder.



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# Exhibit 11





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# Exhibit 11



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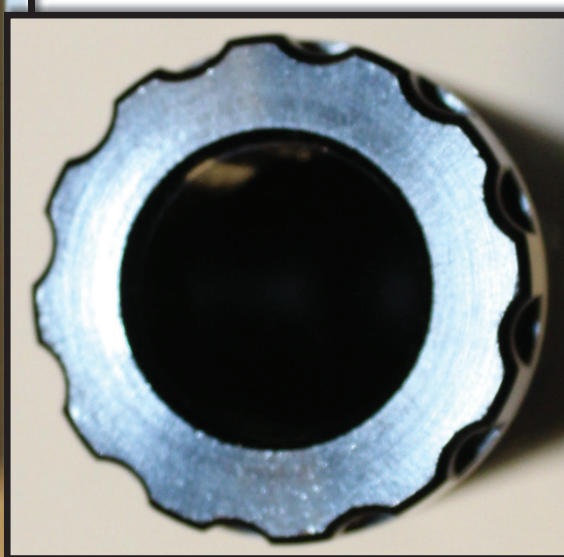
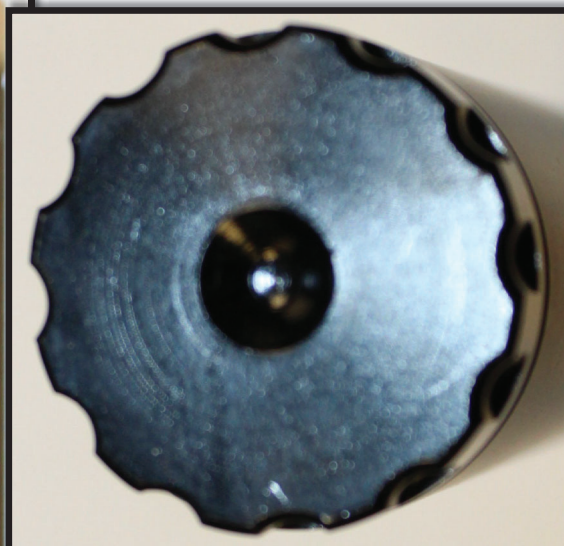
# Exhibit 11





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# Exhibit 13



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# Exhibit 13





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## Exhibit 13



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## Exhibit 13



Note spot-drilled areas marking the central axis of each baffle and front end-cap.



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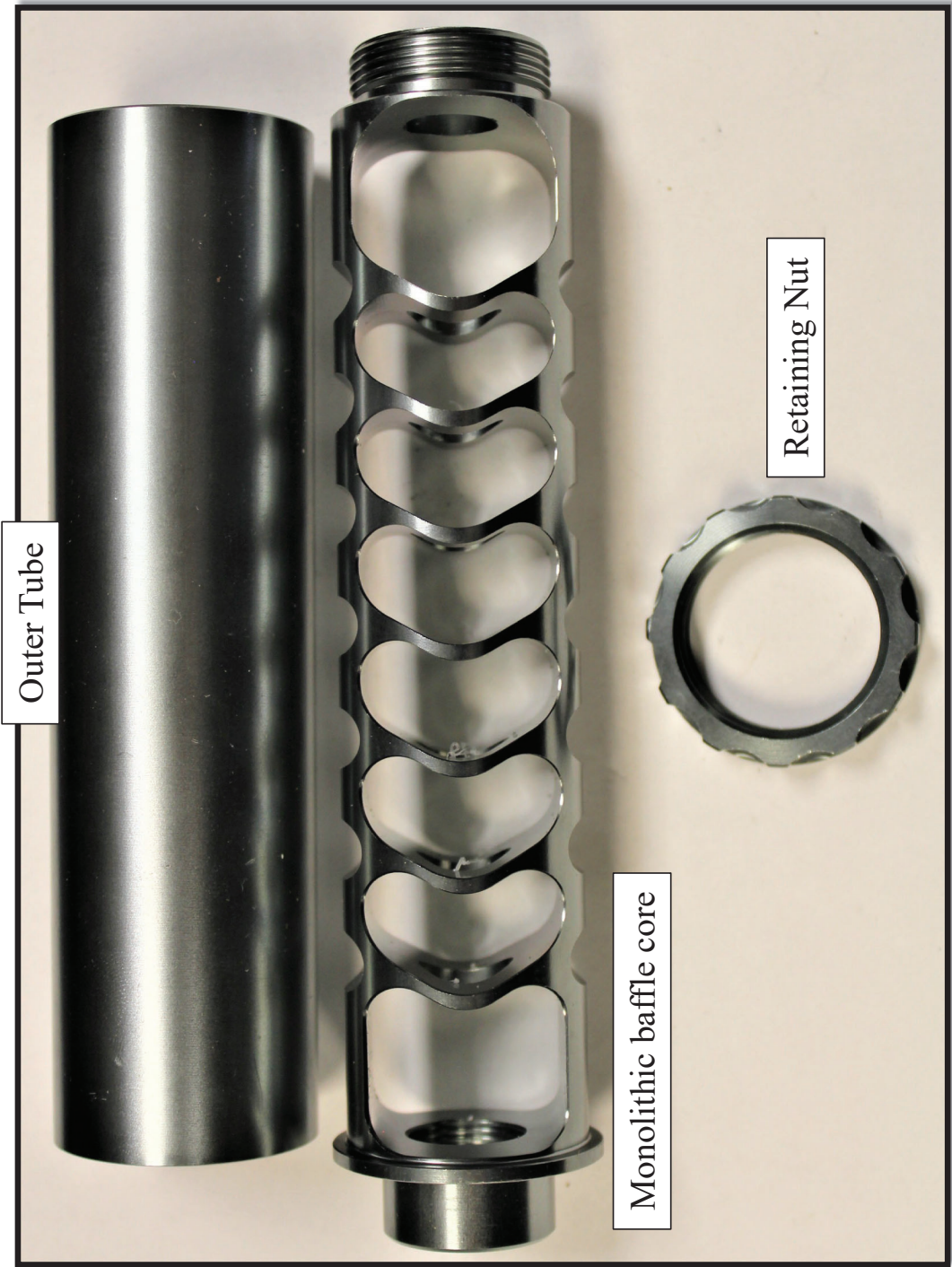
# Exhibit 14





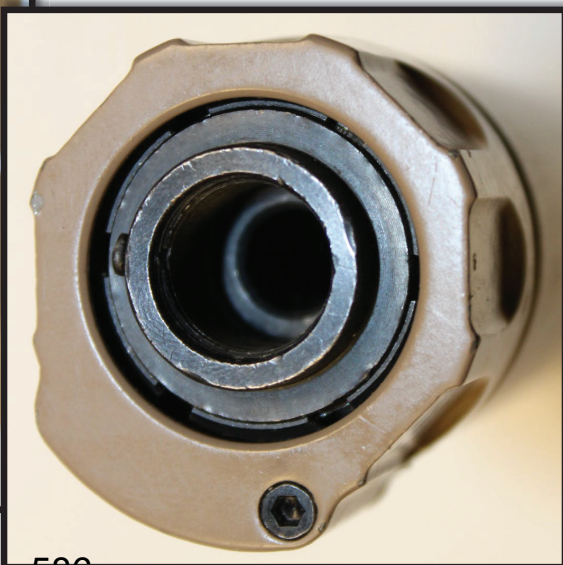
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# Exhibit 14



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# Exhibit 15





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# Exhibit 15

Outer Tube



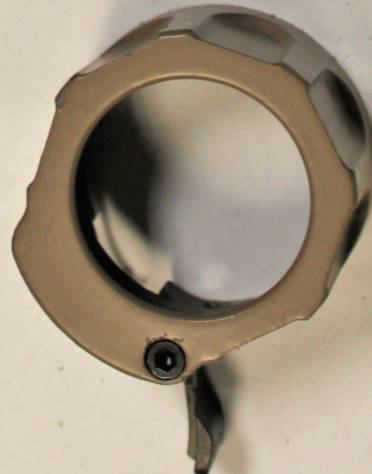
Front end-cap



Coil spring



Rear end-cap

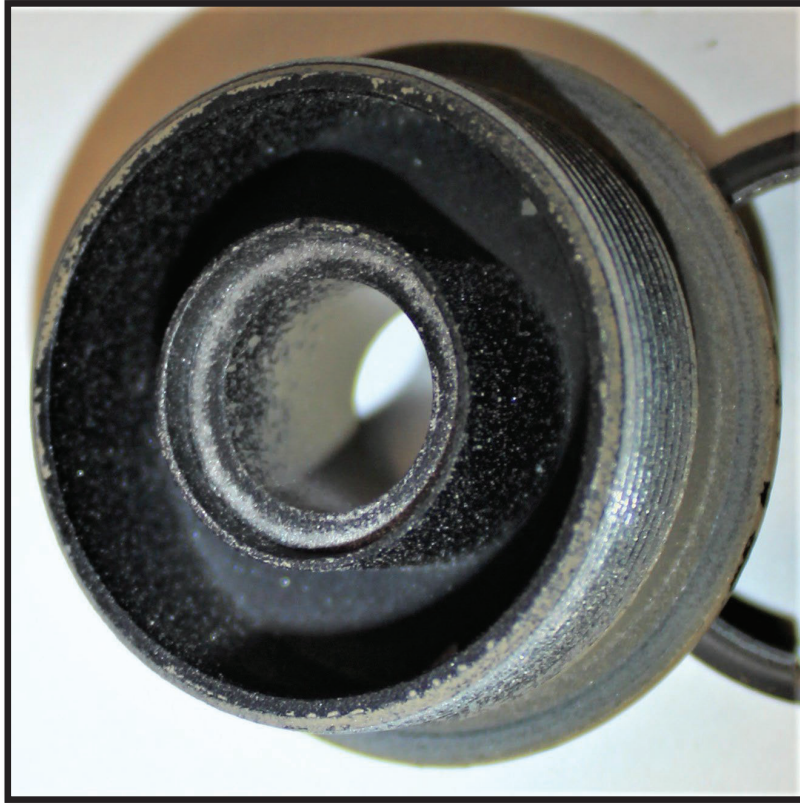


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## Exhibit 15



The interior components of Exhibit 15 appear to be coated with deposits of gray/black residue consistent with fouling by products produced by the combustion of propellant powder.

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## Exhibit 16





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# Exhibit 16

Outer Tube



Front end-cap

